THE SUNNYVALE RED BURIAL
CA-SCL-832

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Deep construction excavation in downtown Sunnyvale exposed a Native American burial with diagnostic artifacts, particular grave characteristics, and a ^{14}C date of 5590 cal BP. The artifacts included Olivella types A1 and A2 spire-ground beads and Haliotis 1A/S6, small double-perforated beads. Ochre staining on the skeletal remains was extreme, and several of the bones showed indications of contact with fire. Charcoal underneath the skeletal remains indicate possible pre-interment ritual in the grave pit. This grave feature at 3.5 meters below the surface represents one of the oldest dated burials with associations in the general area of the San Francisco and Monterey Bay regions.

Excavation for a parking structure with levels of underground parking unearthed human osteological remains in August of 2000. The remains were observed and reported by construction workers after being exposed while digging with large excavation equipment; archaeologists and Native Americans were contacted and consulted. The coroner's office, the Native American Heritage Commission, and representatives from the City of Sunnyvale worked with the author and Kathy Perez (Most Likely Descendent) in coordinating the excavation, study, and reburial of the remains. As part of the coroner's input, cadaver-smelling dogs were brought to the area, and the dogs noted several locations close to the burial where other human remains might be present.

FINDINGS

Archaeological excavation commenced with the exposure of the known remains, a search in back dirt for other remains, and backhoe excavation where the dogs had identified areas for the archaeologist to explore further. The spoil dirt had been transported approximately 40 kilometers away, and examination of the large stockpile of soils failed to reveal any additional archaeological materials. The backhoe excavation did not expose any further traces of osteological or archaeological elements. The original burial remained as the sole remnant of prehistory at the site.

This osteological study of the Red Burial identified a single male adult determined to have been between 35 and 45 years of age at the time of death. Although many of the bones had been disturbed and damaged by construction activities, the remaining bone material was in stable condition. Notable features of the individual included osteophytic lipping visible on the thoracic and lumbar vertebrae, degenerative changes associated with osteoporosis throughout the vertebral column, and an unusual thickening of the long bones.

Even though the burial had been disturbed and was partial (the cranium and mandible were the most notable missing elements), the extreme depth below surface and the presence of a bead lot made it potentially useful for understanding the earlier culture of central California. To establish its age, charcoal that was in concentration under the burial and partially adhering to the bones was recovered for radiometric dating and sent to Beta Analytic for AMS analysis. After being sketched and photographed, the osteological elements were recovered from the field. The soils under the burials were

fine-screened, with samples floated and wet-screened. Shell beads found in the grave were not in situ after disturbance by heavy equipment and were found scattered in the central grave with the long bones. The *Olivella* beads were in fair condition but partially eroded with age, whereas the *Haliotis* beads were extremely fragmented and fragile.

Stratigraphic matrix above the burial was alluvial in nature. Exposures of the stratigraphy were visible in all four walls of a large construction excavation, approximately 150 x 150 meters horizontally, and 3.5 meters vertically, with the burial in a roughly central area of this large excavation. Well-sorted gravel in layers and wedge shaped formations were inter-fingered with sand and silt in a widespread formation across the exposure profiles. These geologic data represented episodic flooding events and probably meandering drainages from the mountains and hills to the east, across the lower peninsula, and toward the San Francisco Bay a few kilometers to the east of the site.

Chronology of the burial feature was established from absolute dating and artifact seriation. Radiocarbon dating of charcoal attached to long bones returned a conventional date of 4830 ± 40 B.P., calibrated to 3670-3620 B.C. (5620-5570 cal BP), Early Period and Archaic, respectively. The most accurate date using the intercept of radiocarbon age and calibration curve is 5590 cal BP.

Time-sensitive artifacts were present with the burial in the form of *Haliotis* and *Olivella* shell beads, with the *Haliotis* being the most chronologically informative. The *Haliotis* beads were small, thin rectangles with double biconically-drilled perforations depicted as Type S6 by Gifford (1947). This is a variant of the highly diagnostic 1A (Lillard, Heizer, and Fenenga 1939). These shell beads found with the Sunnyvale Red Burial measure on the average 5 x 7 mm when complete (most were fragmentary when exposed), and they represent a relatively rare bead type, with other examples reported mainly from the areas of southern California and the Sacramento Delta. The single-perforation form of the *Haliotis* bead is more common, with reports of this bead in sites including SAC-68, ALA-307, SJO-56, SMA-77, and MNT-391 (Cartier 1993b; Gerow with Force 1968; Lillard, Heizer, and Fenenga 1939). In all documented cases, these small *Haliotis* beads are found in sites with Early Period occupation (older than approximately 3000 B.P.), and they are seen as one of the most diagnostic artifacts of this period. The double-perforated form found with the Sunnyvale Red Burial is the first known example reported from the San Francisco Bay Area. In the few examples of these double-perforated *Haliotis* beads reported from southern California, C. King (1990) chronologically places them in the older reaches of shell beds and pendant classification, in excess of 5,000 years old. This correlates well with the radiocarbon date from the Sunnyvale site.

Olivella shell bead types with the Red Burial consisted of the common A1 and A2, simple spire-lopped and oblique spire-lopped, respectively. Both and these types occur in medium (b) and small (a) varieties. Several were noted as having a rust-colored stain that is attributed to the presence of ochre in the grave. These *Olivella* bead types are consistent with the Early Period and Late Archaic but are recognized as present throughout the *Olivella*-bead seriation sequence.

Perhaps the most impressive characteristic of the Red Burial grave is the large amount of ochre associated with the interment (hence prompting the name of the burial, due to the distinct red color of the bones). The osteological remains, portions of the matrix soil, and several of the shell beads were stained a rust-red color. This is the typical ochre color found with burials in the local region, and it appears to be an iron oxide probably prepared from the burnt clay as frequently seen in the local archaeological sites. What is special about the ochre with the Red Burial is the extraordinary amount seen in the grave, and how this ochre resulted in staining all of the osteological remains such a deep rust-red

color. Many burials in the general region have displayed ochre staining, and this is interpreted as the painting of the deceased with ochre pigment prior to interment (Cartier et al, 1993). Once the soft tissues of the body decomposes, the inert iron oxide pigment settles onto longer-lasting physical objects (bone, shell, rock, soil particles), covering or impregnating them with a visible stain. Sometimes this is seen in grave features when the stain is concentrated only on the upper surfaces of a skeleton. In the case of the Red Burial, the staining was extreme and all the bone displayed this characteristic. One other regional case of extreme ochre staining has been reported in the archaeological literature, from the Los Vaqueros Project in the Contra Costa County. There, archaeologists Jack Meyer and Jeff Rosenthal excavated an exceptionally old burial, Burial #14 at CCO-637 (approximately the same age as the Sunnyvale Red Burial) with extensive ochre staining on the skeletal remains and in the grave (Meyer and Rosenthal 1998). It is of interest that this is one of the few other burials in the region of this older antiquity, and it too had the unusual characteristic of extreme ochre staining.

Another characteristic in the grave of the Red Burial was the clear presence of a fire in the base of the grave pit. Charcoal particles up to 15 mm in size were found in the soil under the skeletal remains and adhering to bones, particularly those lying on the base of the grave. Thermal scorching on portions of the bones was evident. From these data, it appears that the body was placed on the fire or embers of a fire as part of the funeral ceremony. This use of fire has been noted in archaeological investigations of regional Native American cemeteries, and it seems to extend chronologically throughout the range of the recognized prehistoric past of the area (Cartier et al. 1993).

Coeval deposits and Native American graves in the region are few and usually lack the diagnostic cultural data afforded by the Sunnyvale Red Burial. Around the San Francisco Bay and Monterey Bay regions, the oldest dated cemeteries are University Village (Palo Alto) at 3700 B.P., Stanford Man II at 4375 B.P., Bart (San Francisco) at 4900 B.P., the Saunders Site (Monterey) at 4000 B.P., and Los Vaqueros/CCO-637 at ca. 5000 B.P. (some of these sites have multiple dates which have been roughly averaged). Of these few sites, only CCO-637 has the antiquity and grave data to compare to the Red Burial, and CCO-637 at Los Vaqueros is 64 kilometers east of San Francisco.

CONCLUSION

The Sunnyvale Red Burial, SCL-832, thus represents an important body of data, both chronologically and culturally for the growing picture of central California archaeology. Sealed beneath strata of gravel and soil at the depth of 3.5 meters for five and one-half millennia, the burial came to light only because of reports by construction workers building a subterranean parking structure. It provides us with the oldest dated grave in the San Francisco Peninsula/South Bay region, well as one of the oldest dates for a grave in central coastal California. The double-perforated A1/S6 *Haliotis* beads are the first seen in this portion of the San Francisco Bay area, and this gives a temporal and spatial connection to similar ornament production/use in the Central Valley and southern California. We see in the funeral ritual the extremely abundant use of ochre in preparing the body of the deceased and the presence of a fire in the base of the grave prior to interment. Overall, this one, fragmentary, disturbed burial has yielded important information on a relatively poorly understood segment of Bay Area prehistory.

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